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Chapter 6 Roadside Information Input

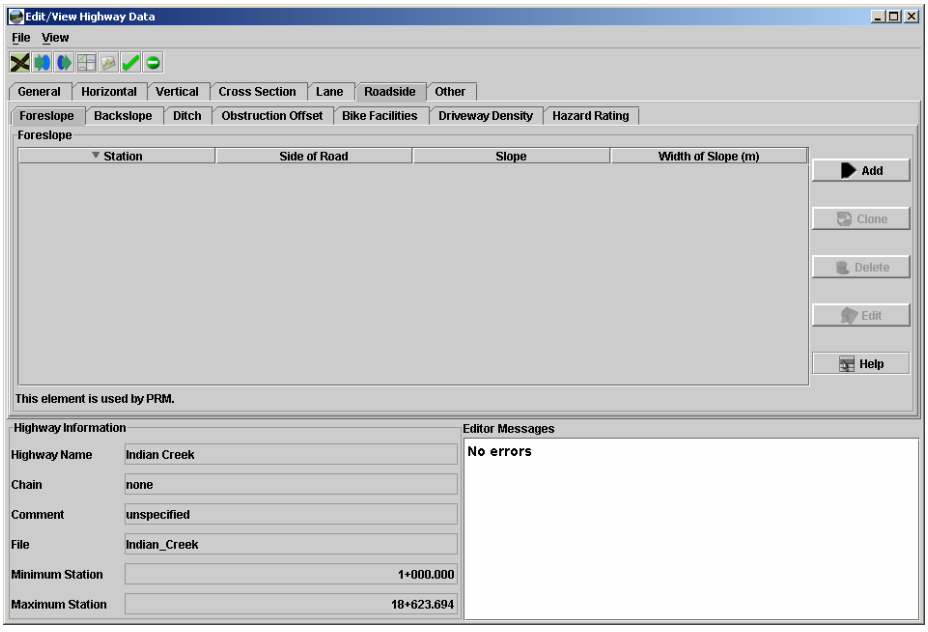
From the Roadside Information tab in the Edit/View Highway Data dialog box the following information may be input:

- Foreslopes
- Backslopes
- Ditches
- Obstruction locations
- Bike Facility locations
- Driveway Densities
- Hazard Ratings

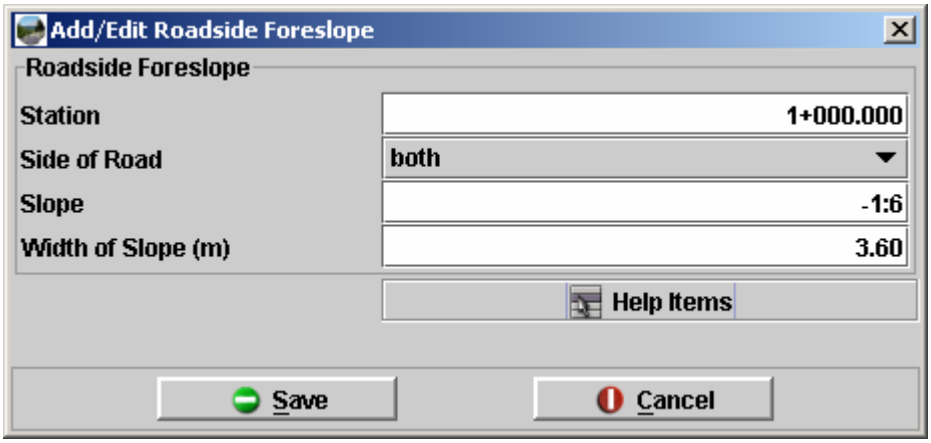
The following workflows will guide the user on how to input each set of data using IHSDM. The title of the workflow will also indicate the modules that use that data in parenthesis. Therefore, if the user does not want a certain module, he will not waste time importing data that is not needed.

Workflow 1: Foreslope Widths (PRM)

1. *Pick the Edit/View Highway Data button*  *while in the Main IHSDM Dialog box. This dialog box is shown in step 16 of workflow 2 in chapter 2.*
2. *Click on the Roadside>Foreslope tabs and the following dialog box will appear:*



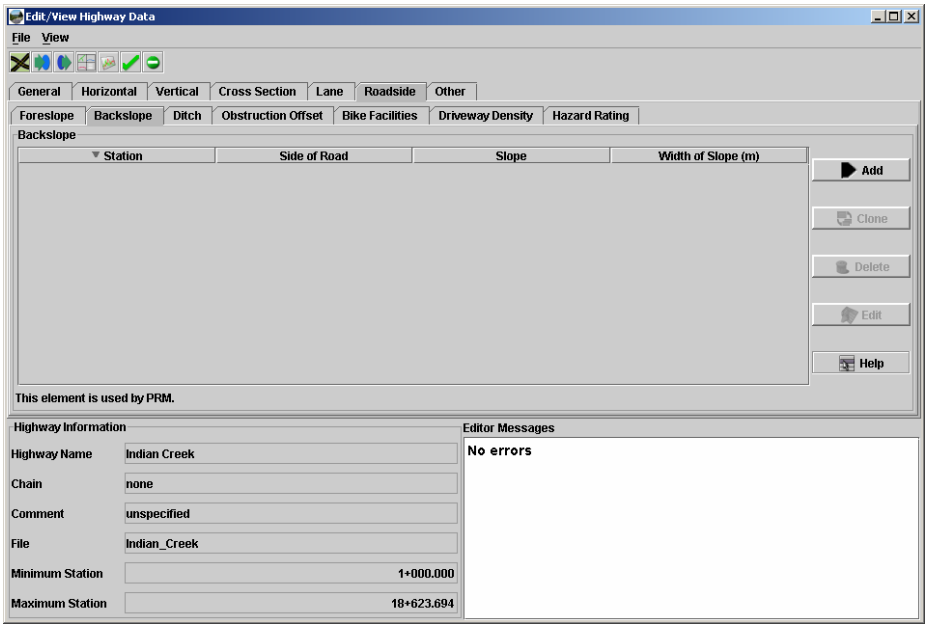
Pick the Add button at the right of the dialog box to get the following dialog box:



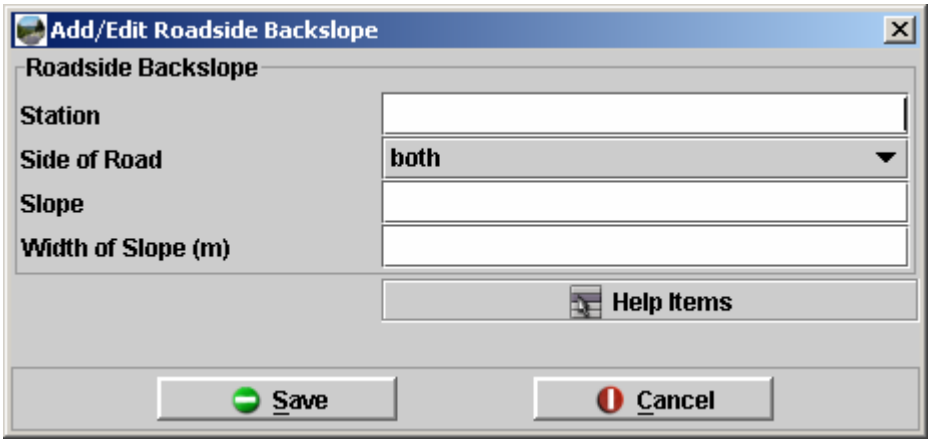
3. *Fill in the beginning station of the alignment, provide the correct foreslope information and pick Save.*
4. *Since IHSDM only allows one station in this dialog box, the user will have to pick Add again and fill in the end station of the constant foreslope. If the foreslope slope or width varies in the project, the user will need to repeat this process for each change in constant foreslope. IHSDM will straight line interpolate between stations where the foreslope changes.*

Workflow 2: Backslope Width (PRM, CPM)

1. *Click on the Roadside>Backslope Tabs of the Edit/View Highway Data dialog box to get the following dialog box:*



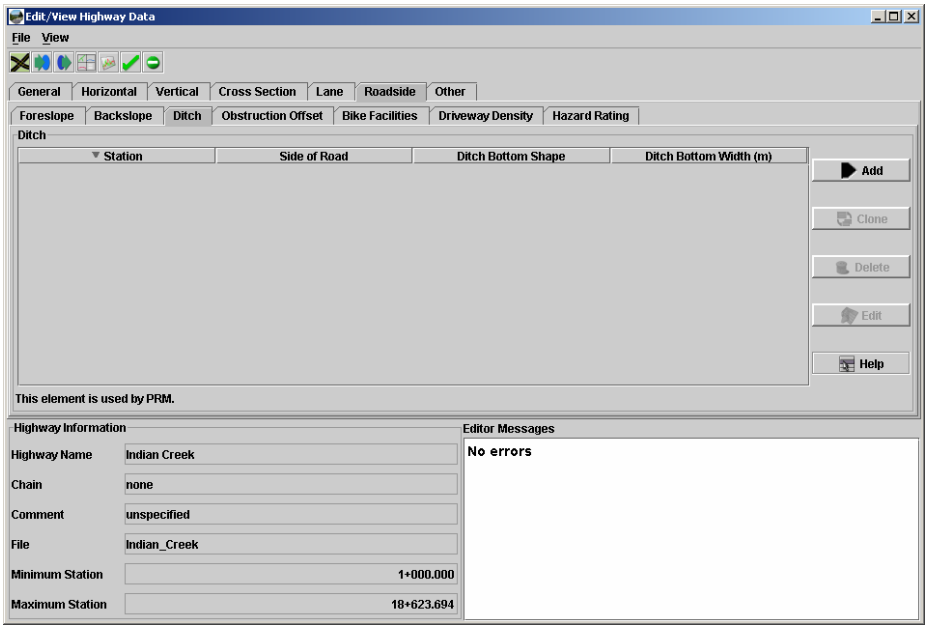
2. *Pick the Add button to get the following dialog box:*



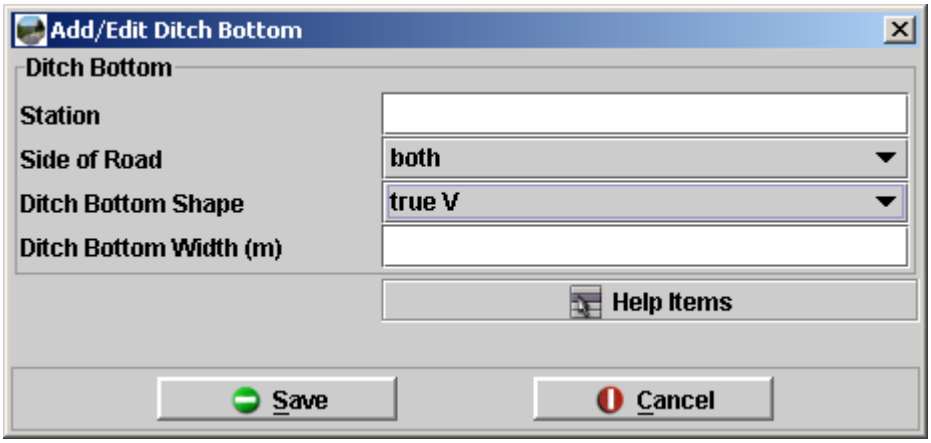
Fill in the proper information and pick Save. If the Backslopes change within the project, additional lines can be added by simply picking the Add button again.

Workflow 3: Ditch Shape (PRM)

1. *Click on the Roadside>Ditch Tabs of the Edit/View Highway Data dialog box to get the following dialog box:*



2. *Pick the Add button to get the following dialog box:*



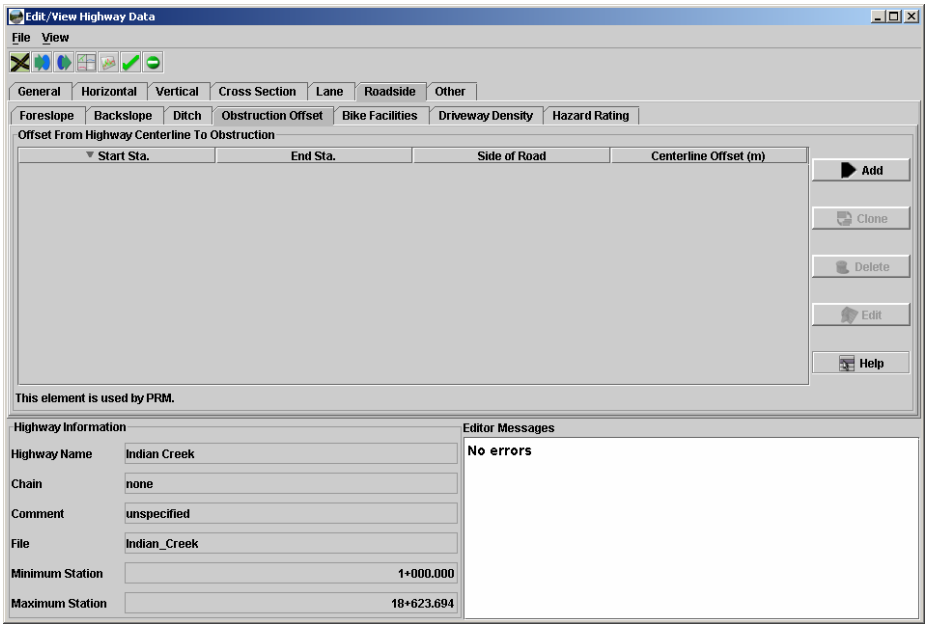
Fill in the proper information and pick Save. If there are multiple Ditch Sections within the project, additional lines can be added by simply picking the Add button again.

Obstruction Offset

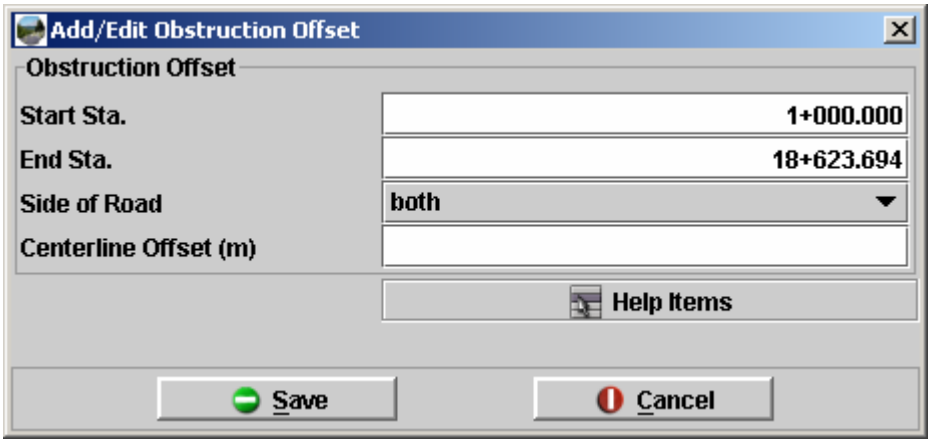
The Obstruction Offset dialog box is for any obstructions that may be in the line of sight for sight distance calculations. The offset is measured from centerline. If no Obstruction Offset is entered, IHSDM assumes a sight obstruction at the edge of shoulder (or edge of pavement if no shoulders are present).

Workflow 4: Obstruction Offset (PRM, TAM, CPM)

1. *Click on the Roadside>Obstruction Offset Tabs of the Edit/View Highway Data dialog box to get the following dialog box:*



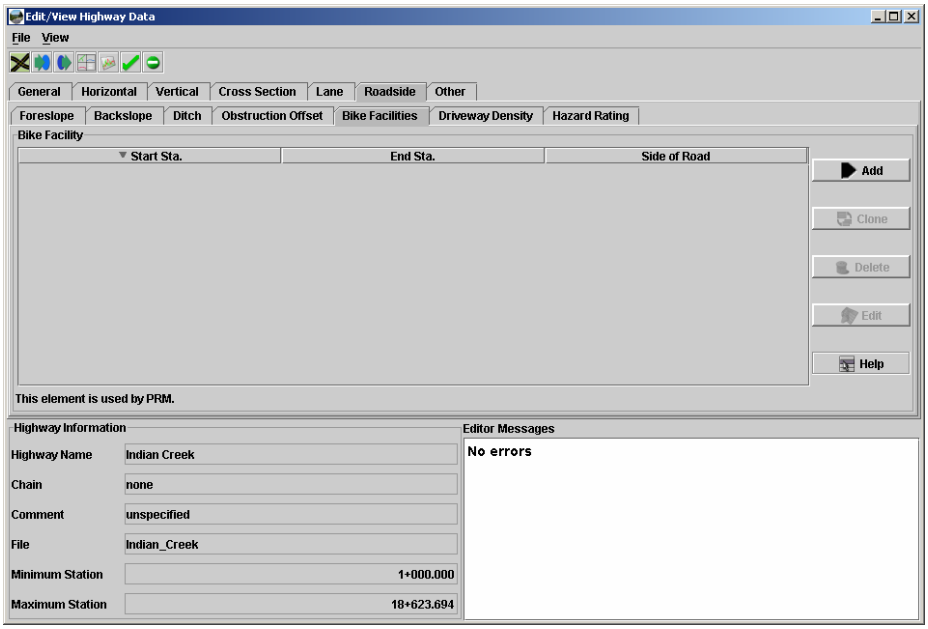
2. *Pick the Add button to get the following dialog box:*



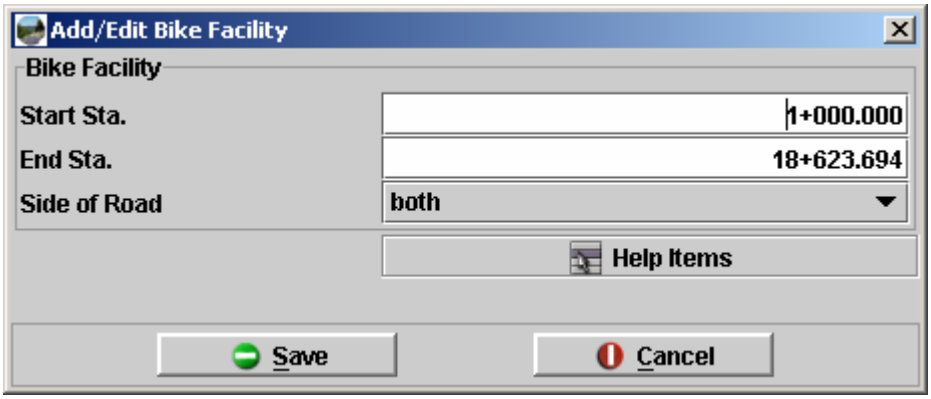
Fill in the proper information and pick Save. If there are multiple obstructions within the project, additional lines can be added by simply picking the Add button again.

Workflow 5: Bike Facilities Location (PRM)

1. *Click on the Roadside>Bike Facilities Tabs of the Edit/View Highway Data dialog box to get the following dialog box:*



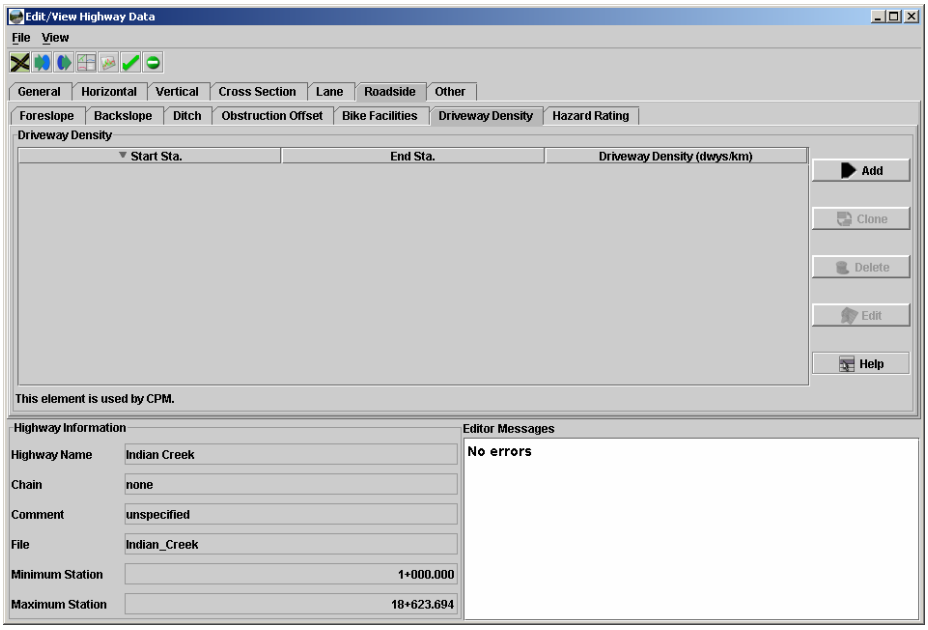
2. *Pick the Add button to get the following dialog box:*



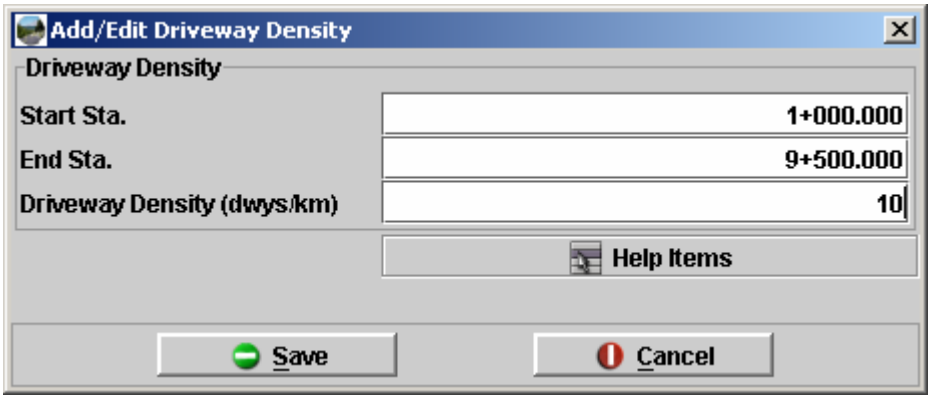
Fill in the proper information and pick Save. Notice that IHSDM defaulted to the beginning and ending station of the project. If there are multiple Bike Facilities within the project, additional lines can be added by simply picking the Add button again.

Workflow 6: Driveway Density (CPM)

1. *Click on the Roadside>Driveway Density tab of the Edit/View Highway Data dialog box to get the following dialog box:*



2. *Pick the Add button to get the following dialog box:*



Fill in the proper information and pick Save. If the Driveway Density varies within the project, additional lines can be added by simply picking the Add button again.

Roadside Hazard Rating

The Roadside Hazard Rating is used by the Crash Prediction Module to characterize the crash potential for roadside designs. The following list describes the 7 ratings:

Rating = 1

- Wide clear zones greater than or equal to 9 m (30 ft) from the pavement edgeline.
- Sideslope flatter than 1:4.
- Recoverable.

Rating = 2

- Clear zone between 6 and 7.5 m (20 and 25 ft) from pavement edgeline.
- Sideslope about 1:4.
- Recoverable.

Rating = 3

- Clear zone about 3 m (10 ft) from pavement edgeline.
- Sideslope about 1:3 or 1:4.
- Rough roadside surface.
- Marginally recoverable.

Rating = 4

- Clear zone between 1.5 and 3 m (5 to 10 ft) from pavement edgeline.
- Sideslope about 1:3 or 1:4.
- May have guardrail (1.5 to 2 m [5 to 6.5 ft] from pavement edgeline).
- May have exposed trees, poles, or other objects (about 3 m or 10 ft from pavement edgeline).
- Marginally forgiving, but increased chance of a reportable roadside collision.

Rating = 5

- Clear zone between 1.5 and 3 m (5 to 10 ft) from pavement edgeline.
- Sideslope about 1:3.
- May have guardrail (0 to 1.5 m [0 to 5 ft] from pavement edgeline).
- May have rigid obstacles or embankment within 2 to 3 m (6.5 to 10 ft) of pavement edgeline.
- Virtually non-recoverable.

Rating = 6

- Clear zone less than or equal to 1.5 m (5 ft).
- Sideslope about 1:2.
- No guardrail.
- Exposed rigid obstacles within 0 to 2 m (0 to 6.5 ft) of the pavement edgeline.
- Non-recoverable.

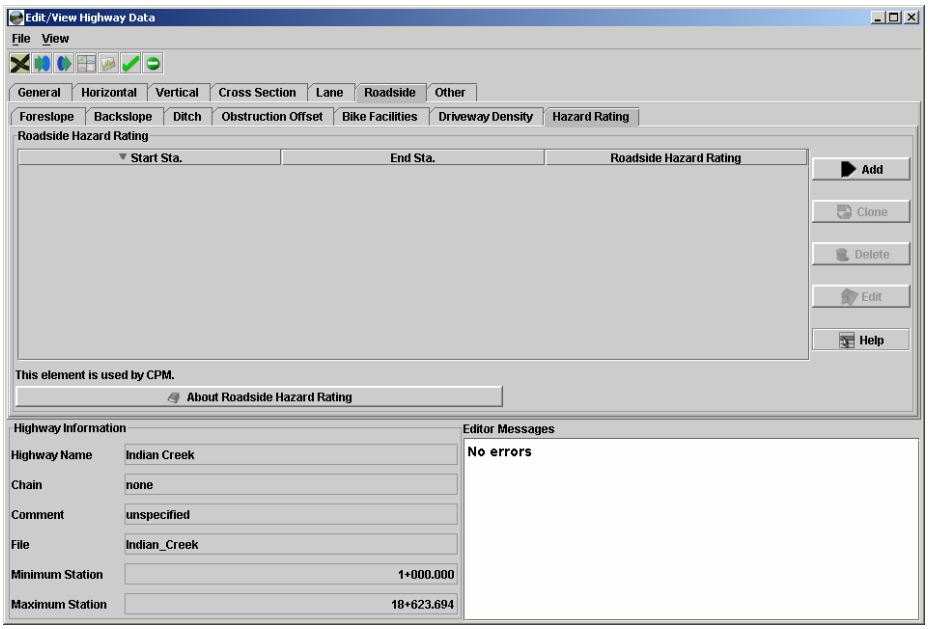
Rating = 7

- Clear zone less than or equal to 1.5 m (5 ft).
- Sideslope 1:2 or steeper.
- Cliff or vertical rock cut.
- No guardrail.
- Non-recoverable with high likelihood of severe injuries from roadside collision.

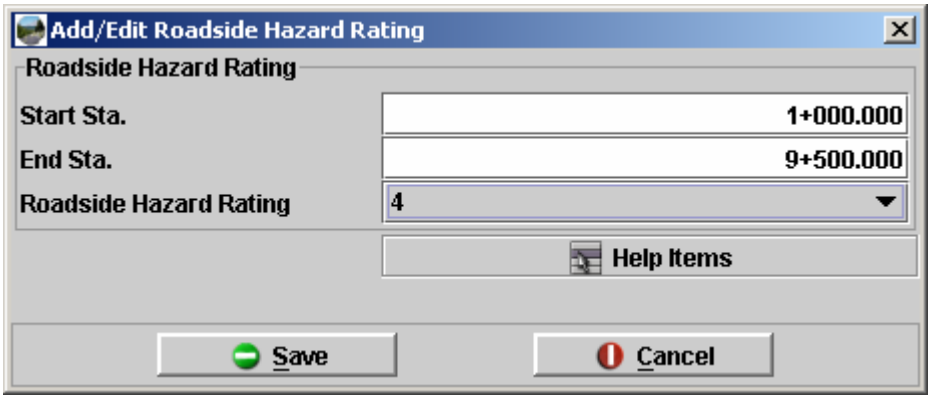
Refer to the Crash Prediction Module Engineer's Manual for a more detailed description or ratings (including photos).

Workflow 7: Roadside Hazard Rating (CPM)

1. *Click on the Roadside>Hazard Rating Tabs of the Edit/View Highway Data dialog box to get the following dialog box:*



2. *Pick the Add button to get the following dialog box:*



3. *Fill in the proper information and pick Save. If there are multiple Roadside Hazard ratings within the project, additional lines can be added by simply picking the Add button again.*

Using an Excel file

The Excel file with the correct format for importing Roadside Information into IHSDM is DEA.Roadside.xls. This file can be found in:

N:\Standards\IHSDM\

or on the CFLHD web site at the following link:

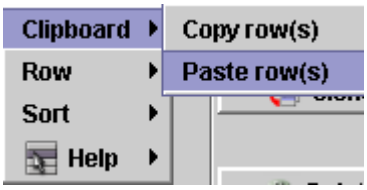
http://www.cflhd.gov/ihsdm.cfm

When you open this file, there is a read me worksheet and the 7 other worksheets that will be used to input all the roadside information. Each worksheet will describe what each variable is and what it is used

for. The following workflow will describe the process for entering this information into IHSDM.

Workflow 8: Excel Input

1. *Enter the correct data in the Excel spreadsheet.*
2. *Highlight the entered data and go to Edit>Copy.*
3. *Click on the General Tab of the Edit/View Highway Data dialog box.*
4. *Pick the corresponding tab for the data to be inserted.*
5. *Pick the Add button.*
6. *Put dummy information in the data fields. Pick the Save button. This creates a line in the Edit/View Highway Data dialog box. The user will delete this line after the correct information is imported.*
7. *With the mouse over the line just put in, right mouse click to get the following dialog box:*



8. *Choose Clipboard>Paste row(s). The information will be loaded into IHSDM.*
9. *Delete the line with the incorrect data.*

Notice that this procedure is most useful when there are more than a couple of lines of data.